

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: STREETWORKS

Report Number: P231365

Luminaire Tested: **ARCH-M-AF48-80-D-U-T4W-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231365
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-80-D-U-T4W-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 535mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8259 lumens
Efficiency: N/A
Efficacy: 99.5 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 83
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

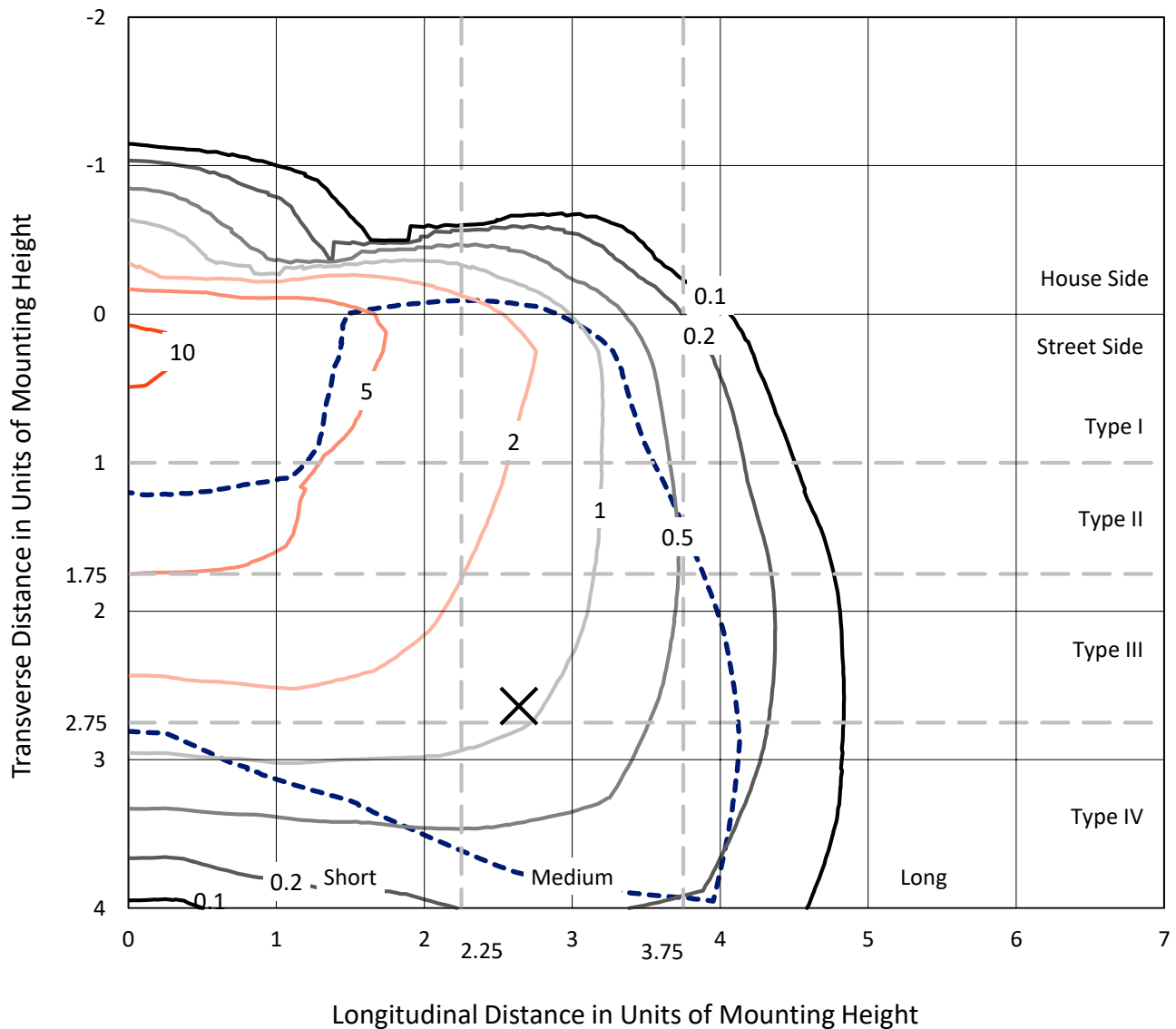


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

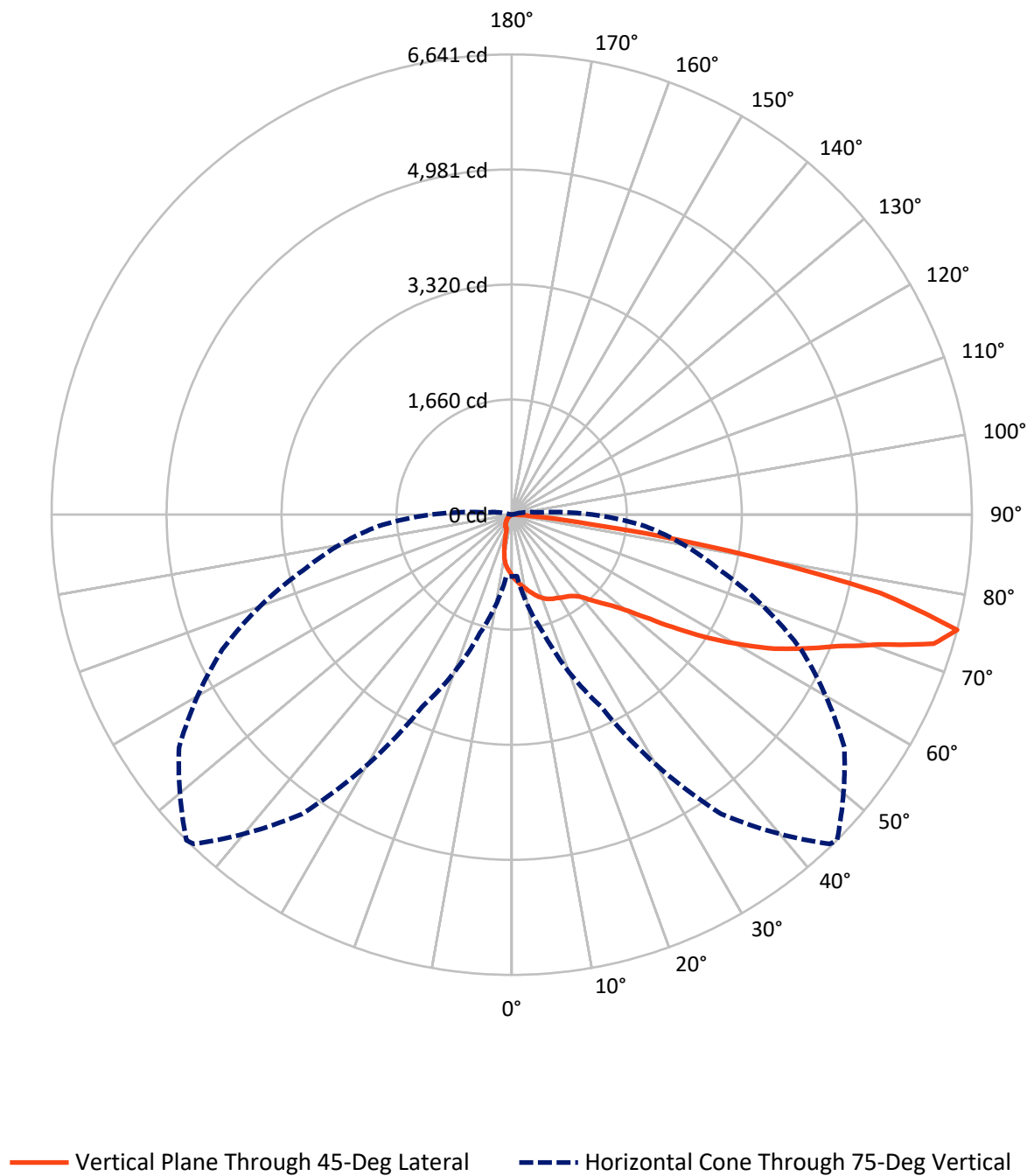


Based on 10 foot mounting height. Maximum calculated value = 11.8 fc
Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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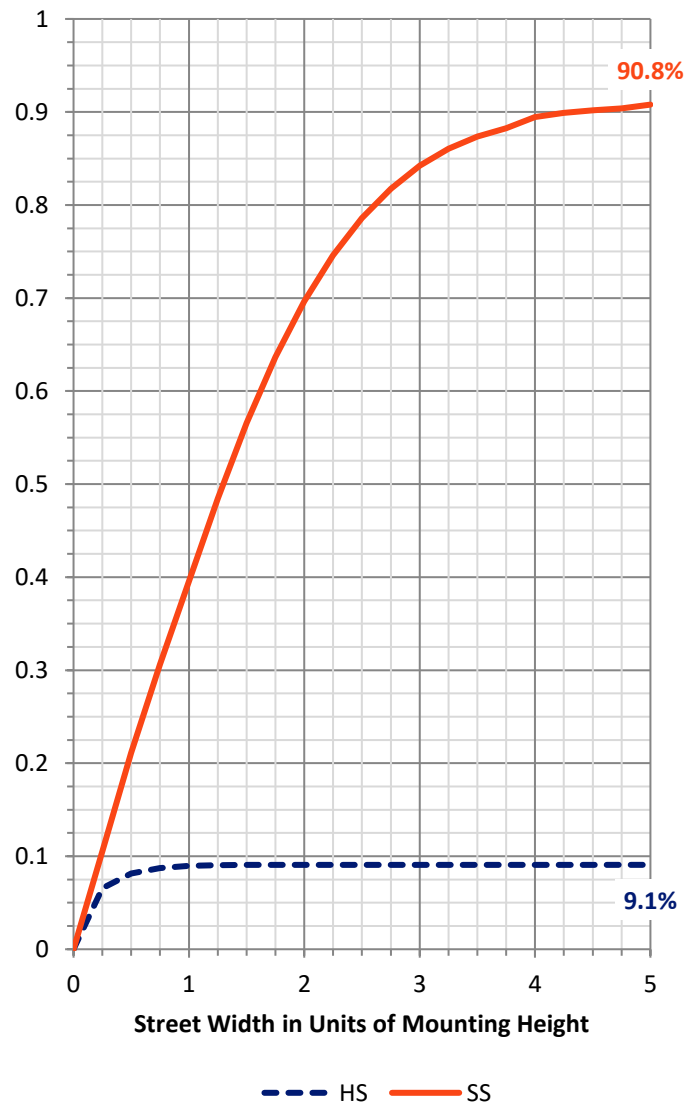
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	755.5	0.0	755.5
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	7503.6	0.0	7503.6
	% Fixture	90.9	0.0	90.9
Total	Lumens	8259.0	0.0	8259.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.4	1.0
10°-20°	236.2	2.9
20°-30°	391.2	4.7
30°-40°	566.1	6.9
40°-50°	927.0	11.2
50°-60°	1651.6	20.0
60°-70°	2428.1	29.4
70°-80°	1831.8	22.2
80°-90°	143.7	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	8259.0	100.0
0°-180°	8259.0	100.0

Coefficient of Utilization



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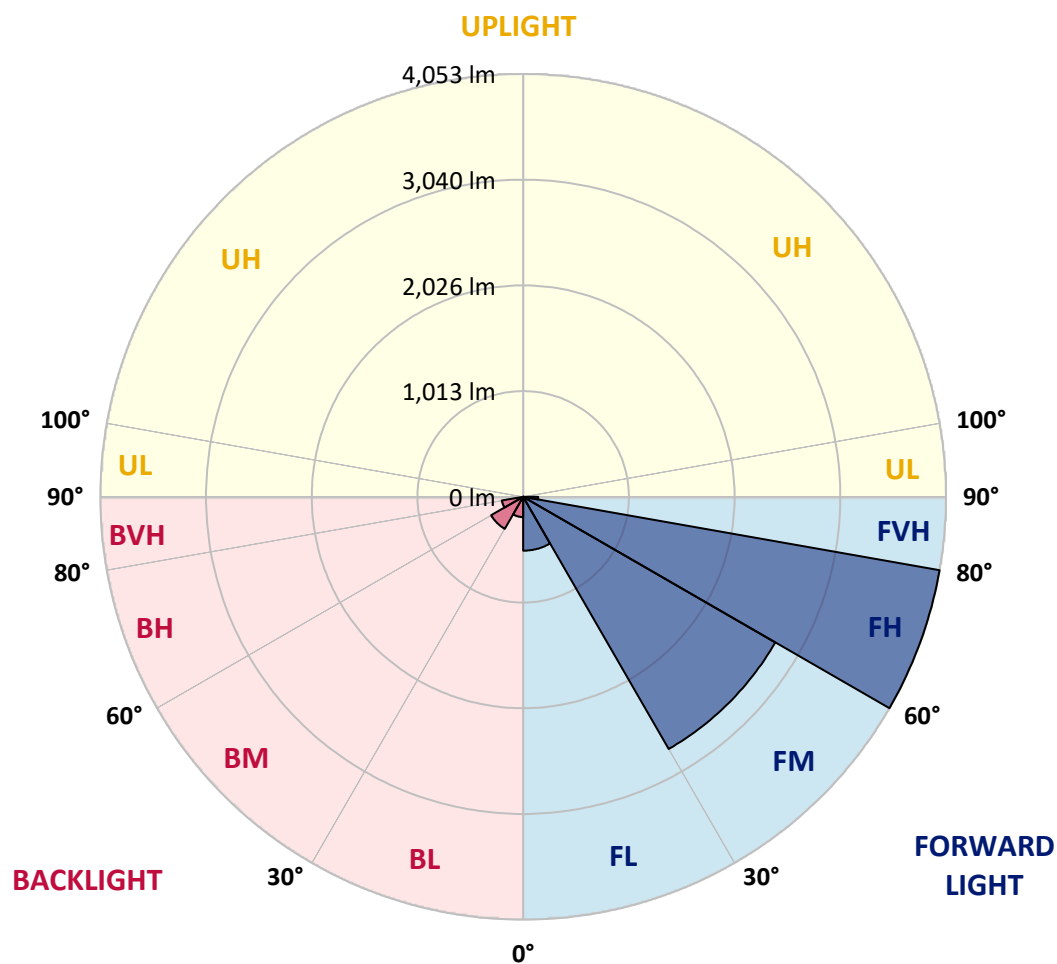
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	516.6	6.3			
FM	(30°-60°)	2790.7	33.8			
FH	(60°-80°)	4053.0	49.1			G2/5000
FVH	(80°-90°)	143.3	1.7			G2/225
BL	(0°-30°)	194.1	2.4	B1/500		
BM	(30°-60°)	354.0	4.3	B1/1000		
BH	(60°-80°)	206.9	2.5	B1/500		G1/500
BVH	(80°-90°)	0.4	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	883.3	883.3	883.3	883.3	883.3	883.3	883.3	883.3	883.3	883.3	883.3
2.5°	959.6	959.6	957.6	955.7	945.9	936.1	934.2	928.3	910.7	899.0	887.3
5°	1039.7	1041.6	1037.7	1028.0	1006.5	985.0	983.0	967.4	934.2	910.7	885.3
7.5°	1115.9	1119.8	1110.0	1092.5	1067.0	1035.8	1033.8	1004.5	961.5	928.3	891.2
10°	1180.4	1180.4	1166.7	1145.2	1117.9	1084.6	1080.7	1047.5	998.6	957.6	908.8
12.5°	1250.8	1248.8	1229.3	1199.9	1168.7	1137.4	1135.4	1094.4	1047.5	994.7	934.2
15°	1315.2	1311.3	1285.9	1258.6	1225.3	1192.1	1190.2	1149.1	1100.3	1037.7	971.3
17.5°	1350.4	1348.5	1325.0	1297.7	1270.3	1244.9	1242.9	1199.9	1147.2	1082.7	1008.4
20°	1356.3	1358.2	1338.7	1315.2	1299.6	1285.9	1285.9	1246.8	1190.2	1121.8	1047.5
22.5°	1358.2	1364.1	1350.4	1319.2	1315.2	1317.2	1321.1	1289.8	1231.2	1166.7	1088.5
25°	1371.9	1379.7	1370.0	1332.8	1328.9	1342.6	1346.5	1332.8	1280.1	1215.6	1135.4
27.5°	1399.3	1407.1	1399.3	1352.4	1346.5	1360.2	1364.1	1371.9	1332.8	1262.5	1184.3
30°	1454.0	1456.0	1438.4	1379.7	1368.0	1385.6	1391.5	1413.0	1381.7	1307.4	1231.2
32.5°	1549.8	1530.2	1477.5	1399.3	1389.5	1409.1	1414.9	1438.4	1426.6	1350.4	1280.1
35°	1745.2	1643.6	1522.4	1426.6	1416.9	1436.4	1444.2	1477.5	1483.3	1411.0	1340.7
37.5°	1743.2	1651.4	1627.9	1479.4	1465.7	1479.4	1489.2	1530.2	1553.7	1491.1	1428.6
40°	1866.4	1827.3	1827.3	1579.1	1534.1	1553.7	1563.4	1604.5	1645.5	1596.7	1532.2
42.5°	2253.3	2227.9	2200.5	1770.6	1629.9	1684.6	1690.5	1715.9	1764.7	1749.1	1672.9
45°	2685.2	2661.8	2556.2	2095.0	1794.0	1803.8	1817.5	1858.5	1928.9	1958.2	1868.3
47.5°	3023.3	2999.9	2910.0	2485.9	2050.1	1964.1	1964.1	2044.2	2153.6	2227.9	2141.9
50°	3295.0	3267.6	3212.9	2902.1	2470.2	2194.7	2183.0	2276.8	2439.0	2554.3	2495.6
52.5°	3558.8	3478.7	3445.4	3332.1	2945.1	2528.9	2497.6	2564.0	2788.8	2931.5	2882.6
55°	3734.7	3722.9	3687.8	3726.9	3443.5	2935.4	2908.0	2921.7	3203.1	3298.9	3238.3
57.5°	3898.8	3896.9	3975.1	4156.8	3986.8	3400.5	3357.5	3336.0	3603.7	3580.3	3633.0
60°	4102.1	4066.9	4248.7	4508.6	4485.1	3853.9	3805.0	3762.0	3910.6	3844.1	4106.0
62.5°	4111.9	4102.1	4471.4	4844.7	4979.6	4315.1	4258.4	4104.0	4178.3	4102.1	4557.4
65°	3738.6	3787.4	4565.3	5022.6	5393.9	4719.6	4651.2	4410.9	4416.7	4365.9	5089.0
67.5°	3654.5	3680.0	4307.3	5214.1	5692.9	5128.1	5063.6	4764.6	4694.2	4698.1	5403.6
70°	3445.4	3484.5	3986.8	5200.4	5929.4	5673.3	5608.8	5284.4	5114.4	4924.8	5161.3
72.5°	2632.4	2698.9	3359.4	4559.4	5864.9	6386.7	6369.1	5943.0	5282.5	4522.3	3904.7
75°	891.2	889.2	1764.7	3062.4	5268.8	6605.5	6640.7	5861.0	4608.2	3119.1	1938.7
77.5°	191.5	193.5	363.5	1241.0	3500.2	5304.0	5438.8	4420.6	2972.5	1389.5	443.6
80°	93.8	95.8	150.5	328.3	1399.3	2974.4	3185.5	2272.9	1098.3	277.5	74.3
82.5°	46.9	48.9	78.2	173.9	517.9	1057.3	1129.6	836.4	314.6	156.3	37.1
85°	17.6	17.6	39.1	103.6	236.5	248.2	304.9	242.3	189.6	127.0	9.8
87.5°	3.9	3.9	21.5	50.8	105.5	78.2	78.2	74.3	115.3	86.0	3.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	883.3	883.3	883.3	883.3	883.3	883.3	883.3	883.3	883.3	883.3	883.3
2.5°	881.4	873.6	859.9	846.2	836.4	824.7	818.9	813.0	811.0	809.1	813.0
5°	871.6	859.9	834.5	813.0	793.4	777.8	766.1	754.4	748.5	744.6	746.5
7.5°	871.6	854.0	816.9	783.7	752.4	719.2	686.0	660.6	641.0	629.3	631.2
10°	881.4	857.9	809.1	764.1	705.5	635.1	562.8	508.1	471.0	449.5	449.5
12.5°	902.9	871.6	811.0	740.7	641.0	517.9	408.4	342.0	314.6	299.0	301.0
15°	932.2	895.1	820.8	709.4	551.1	385.0	285.3	242.3	242.3	246.2	248.2
17.5°	965.4	924.4	828.6	662.5	435.8	275.6	224.7	220.8	226.7	236.5	236.5
20°	998.6	953.7	832.5	588.2	326.4	218.9	213.0	213.0	216.9	226.7	228.7
22.5°	1039.7	990.8	828.6	496.4	244.3	207.2	205.2	205.2	205.2	216.9	216.9
25°	1082.7	1033.8	813.0	398.7	207.2	199.3	197.4	195.4	195.4	205.2	207.2
27.5°	1131.5	1078.8	775.9	304.9	195.4	191.5	189.6	185.7	185.7	193.5	193.5
30°	1180.4	1129.6	719.2	230.6	185.7	183.7	179.8	175.9	172.0	179.8	179.8
32.5°	1233.2	1182.4	644.9	183.7	172.0	172.0	170.0	164.2	160.3	164.2	166.1
35°	1303.5	1242.9	560.9	160.3	154.4	154.4	154.4	152.4	144.6	148.5	148.5
37.5°	1397.3	1327.0	463.2	148.5	140.7	136.8	136.8	136.8	130.9	132.9	132.9
40°	1516.5	1424.7	369.4	138.8	130.9	121.2	117.3	119.2	115.3	115.3	113.3
42.5°	1678.7	1530.2	277.5	130.9	123.1	109.4	101.6	99.7	95.8	93.8	93.8
45°	1911.3	1659.2	199.3	123.1	117.3	95.8	87.9	82.1	72.3	66.4	66.4
47.5°	2212.3	1805.8	148.5	115.3	111.4	84.0	74.3	62.5	48.9	44.9	44.9
50°	2579.7	1969.9	125.1	103.6	101.6	74.3	58.6	41.0	27.4	23.5	25.4
52.5°	2937.3	2124.3	111.4	91.9	89.9	64.5	43.0	21.5	11.7	11.7	11.7
55°	3238.3	2233.8	101.6	82.1	78.2	50.8	23.5	9.8	5.9	5.9	5.9
57.5°	3509.9	2296.3	91.9	72.3	62.5	35.2	9.8	3.9	3.9	2.0	2.0
60°	3758.1	2333.4	80.1	62.5	48.9	19.5	3.9	2.0	2.0	0.0	0.0
62.5°	4002.4	2360.8	68.4	50.8	37.1	7.8	2.0	2.0	0.0	0.0	0.0
65°	4188.1	2351.0	54.7	41.0	23.5	3.9	2.0	0.0	0.0	0.0	0.0
67.5°	4182.2	2218.1	41.0	31.3	11.7	2.0	0.0	0.0	0.0	0.0	0.0
70°	3740.5	1868.3	27.4	19.5	3.9	2.0	0.0	0.0	0.0	0.0	0.0
72.5°	2653.9	1198.0	17.6	11.7	2.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	1168.7	363.5	9.8	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	228.7	84.0	5.9	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	54.7	9.8	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	23.5	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.9	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.9	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)